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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/868,200	09/10/2001	Gunter Fuhr	A34368PCTUSA	7034

21003 7590 10/27/2003

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EXAMINER
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GITOMER, RALPH J

ART UNIT	PAPER NUMBER
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1651

DATE MAILED: 10/27/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/868,200

Applicant(s)

Fuhr et al.

Examiner

Ralph Gitomer

Art Unit

1651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Jun 5, 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 52-77 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 52-77 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☒ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_ 6) ☐ Other:

The Office Action mailed 8/20/2003 is hereby vacated at the attorney's request and the date for response reset with this Office Action.

5           The RCE request received 6/5/2003 and the amendment received 3/11/2003 have been entered and claims 52-77 are currently pending in this application. Priority is claimed to 12/14/1998. Please update the status of related cases in the specification. And please inform the examiner as to where in the specification enablement is found for isotope marking which is claimed in claim 10 56.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under 15 this section made in this Office action:

A person shall be entitled to a patent unless -

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign 20 country, before the invention thereof by the applicant for a patent.

Claims 52-71, 74-77 are rejected under 35 U.S.C. 102(a) as being anticipated by Fuhr.

Fuhr (Biol Chem) entitled ❖Cell Traces--Footprints of Individual Cells During Locomotion and Adhesion❖ with different 25 authors than the present inventive entity, teaches the present invention as claimed.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5

Claims 52-54, 58, 63-66, 68-76 are rejected under 35 U.S.C. 102(b) as being anticipated by Matsuda.

Matsuda (J of Biomedical Materials Res) entitled ~~✕~~Control of Cell Adhesion, Migration, and Orientation on Photochemically Microprocessed Surfaces~~✕~~ teaches in the abstract, patterns of adhesive and nonadhesive domains on tissue culture dishes of varying widths to study cells adhered, migrated, and proliferated. On page 165 column 2, the surface was precisely created where cells adhered, migrated and proliferated. On page 167 column 1, cellular behaviors such as adhesion, migration, and proliferation, and morphological regulation were quantitatively evaluated under the microscope. On page 169 column 2, implanted artificial devices are discussed. On page 172 column 1 last paragraph, chemotactic activity and microscopic and imaging apparatuses are disclosed.

25

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

5 (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be  
10 negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various  
15 claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the  
20 examiner to consider the applicability of 35 U.S.C. 103<sup>o</sup> and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

25 Claims 55-57, 59-62, 67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuda.

Matsuda (J of Biomedical Materials Res) entitled ~~Control~~ of Cell Adhesion, Migration, and Orientation on Photochemically Microprocessed Surfaces~~teaches~~ teaches in the abstract, patterns of adhesive and nonadhesive domains on tissue culture dishes of

varying widths to study cells adhered, migrated and proliferated. On page 165 column 2, the surface was precisely created where cells adhered, migrated and proliferated. On page 167 column 1, cellular behaviors such as adhesion, migration, and proliferation, and morphological regulation were quantitatively evaluated under the microscope. On page 169 column 2, implanted artificial devices are discussed. On page 172 column 1 last paragraph, chemotactic activity and microscopic and imaging apparatuses are disclosed.

Claims 55-57, 59-62 differ from Matsuda in that they include limitations regarding analysis of the cell traces and claim 67 differs in that it claims the tracks intersect.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to analyze to cell traces as described by Matsuda with the analytical methods presently claimed because Matsuda teaches determining the tracks and movement rates over time. The analytical methods presently claimed are all well known methods and no function of such methods or results of such analysis is claimed. Therefor, the same function would be obtained by the claimed methods as taught by Matsuda. Note the present claims are directed to cell trace based testing of biological cells wherein said testing identifies at least one property of said cells and Matsuda is more specifically directed to determining cell adhesion, migration, proliferation, migratory rate, and orientation which would be

encompassed by the present claims.

Regarding the tracks of the device being either parallel or intersecting, Matsuda teaches parallel tracks and to make other patterns of tracks for the same function would be a mere design  
5 choice. No function is claimed for the pattern of tracks.

Claims 52-77 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant  
10 regards as the invention. Each of the following applies in all occurrences.

In claim 52, line 1, ~~cell~~ traced based testing~~ing~~ is queried regarding the meaning of traced. In claim 55 ~~they~~ is unclear as to what may be intended. In claim 56 ~~on the basis~~ is  
15 unclear as to what may be intended. In claim 57 ~~they are~~ is indefinite as to what may be intended. In claim 61 ~~their~~ impedance~~ing~~ does not recite who impedance. In claim 62 ~~their~~ elasticity~~ing~~ does not define whose elasticity. In claim 75 ~~an~~ implant material~~ing~~ is not understood in context as to what may be  
20 intended.

The title of the invention is not aptly descriptive. A new title is required that is clearly indicative of the invention to  
25 which the claims are directed.

The Abstract of the Disclosure is objected to because it is in improper format. Correction is required. See M.P.E.P. § 608.01(b).

5 The disclosure is objected to because of the following informalities: The specification lacks standard headings. Appropriate correction is required.

10 The following prior art pertinent to applicant's disclosure is made of record and not relied upon:  
Schwind (EP 0 849 595 B1) teaches synthetic particles as agglutination reagents.  
Chen (J of Cell Biology) teaches cell movement assays.

15 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ralph Gitomer whose telephone number is (703) 308-0732. The examiner can normally be reached on Tuesday-Friday from 8:00 am - 5:00 pm.  
20 The examiner can also be reached on alternate Mondays. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Wityshyn can be reached on (703) 308-4743. The fax phone number for this Art Unit is (703) 872-9306. Any inquiry of a general nature or relating to the status  
25 of this application should be directed to the Group receptionist



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whose telephone number is (703) 308-1235. For 24 hour access to  
patent application information 7 days per week, or for filing  
applications electronically, please visit our website at  
www.uspto.gov and click on the button Patent Electronic Business  
Center for more information.

*Ralph Gitomer*

Ralph Gitomer  
Primary Examiner  
Group 1651

RALPH GITOMER  
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GROUP 1200